

Claims:

1. A method for detection of an analyte in a test sample by a specific binding reaction among the analyte, a specific binding partner for the analyte, and an (immuno)reactant provided with a label, ^{wherein} characterized in that the label is a lanthanide ion-ligand complex wherein the lanthanide ion is neodymium(III) ion (Nd^{3+}), ytterbium(III) ion (Yb^{3+}), or erbium(III) ion (Er^{3+}) and the ligand comprises or is in contact with a sensitizing moiety which absorbs in the 400-1000 nm region, and preferably in the 400-800 nm region.
2. The method according to claim 1 wherein the lanthanide ion is neodymium(III) ion (Nd^{3+}) or ytterbium(III) ion (Yb^{3+}).
3. The method according to claim 1 or 2 wherein the sensitizing moiety is selected from ^{the group consisting of} fluorescein derivatives; triphenylmethane derivatives; porphyrin derivatives; rhodamine derivatives; phenothiazine derivatives; phenoxazine derivatives; coumarin derivatives; acridin derivatives; (thio)-indigo derivatives; carbocyanine derivatives; squaraine derivatives; and (na)phthalocyanine derivatives.
4. The method according to claim 1 wherein the ligand is a composition comprising a compound comprising oxygen, nitrogen, phosphorous, or sulfur moieties which have complexing ability towards $\text{Nd}(\text{III})$, $\text{Yb}(\text{III})$, or $\text{Er}(\text{III})$ ions, in particular polyaminocarboxylic acid, pyridinedicarboxylic acid, or a derivative thereof, and a sensitizing moiety selected from ^{the group consisting of} fluorescein derivatives; triphenylmethane derivatives; porphyrin derivatives; rhodamine derivatives; phenothiazine derivatives; phenoxazine derivatives; coumarin derivatives; acridin derivatives; (thio)indigo derivatives; carbocyanine derivatives; squaraine derivatives; and (na)phthalocyanine derivatives.

5. A kit for detection of an analyte in a test sample comprising:

- a specific binding partner for the analyte;

- a (immuno)reactant provided with a label wherein the label is a lanthanide ion-ligand complex and the lanthanide ion is neodymium(III) ion

5 (Nd³⁺), ytterbium(III) ion (Yb³⁺), or erbium(III) ion (Er³⁺), and the ligand comprises or is in contact with a sensitizing moiety which absorbs in the 400-1000 nm region, and preferably in the 400-800 nm region, and wherein the specific binding partner and the labeled (immuno)reactant are, optionally, attached to a carrier.

6. An apparatus for detection of an analyte in a test sample comprising:

- the kit of ~~claim 5~~;

- a light source in the 400-1000 nm range;

15 - a detector which is suitable for detecting luminescence in the 800-1600 nm, preferably 800-1100 nm range.

[illegible]

Cont
Ans b1

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